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November 25, 2009

## ***VIA UPS OVERNIGHT***

Gail Mitchell, Deputy Director  
Water Protection Division  
U.S. EPA Region 4  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, Georgia 30303-8960

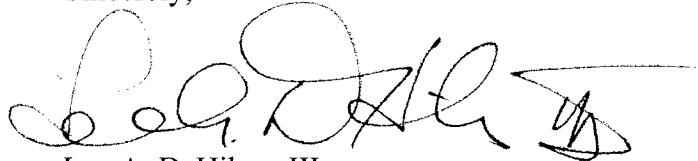
**Re: October 6, 2009, Information Request – Section 308 of the Clean Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are three separate letters dated November 24, 2009, each with certifications signed pursuant to the Request and information responsive to Paragraph 4 of Enclosure A, **Compost Use Review Report**; Paragraph 1 of Enclosure A, **Private Drinking Water Well Survey Results**; and Paragraph 9 of Enclosure A, **Monthly Progress Report**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba  
Enclosures

LEGAL02/31578197v6



November 24, 2009

Ms. Gail Mitchell, Deputy Director  
Clean Water Enforcement Branch  
Water Protection Division  
U.S. Environmental Protection Agency, Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act  
Monthly Progress Report

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting this Monthly Progress Report. These reports will be submitted to you at the end of each month. Dalton Utilities submitted the Drinking Water Well Survey (Drinking Water Report), Drinking Water Well Monitoring Report, Composted Biosolids Monitoring Plan, Compost Use Review Report, and Well Construction Records on November 4, November 5, November 2, November 2, and October 23, 2009, respectively, in response to the aforementioned Information Request.

As noted in the Drinking Water Well Monitoring Report, Dalton Utilities has received preliminary results for all the wells sampled as part of the Drinking Water Well Survey; however, all final analytical reports for these samples have not been received. Dalton Utilities has also submitted to EPA all the final analytical reports received to date and will submit any additional final analytical reports to EPA within five days of receipt. Dalton Utilities has requested any available information on intent to drill forms filed with the Georgia Environmental Protection Division within the well survey radius (see Attachment A). Further, as noted in the Drinking Water Well Monitoring Report, quarterly sampling of the locations shown to have levels of PFOA or PFOS above the contract laboratory's reporting limit or level of quantification and below the published public health advisory level has been initiated. The first quarterly samples were collected on November 18, 2009.

As noted in the Compost Use Review Report, Dalton Utilities continues to investigate the distribution of the finished compost. To date, Dalton Utilities has contacted all of the large volume distributors for which we have contact information to determine the last known distribution point for each of these distributors based on their available records as noted in our correspondence to Mr. Hom dated October 20, 2009. The most up to date information on this use investigation is attached herein as Attachment B.

Additionally, as indicated in the Compost Use Review Report, Dalton Utilities is currently sampling certain locations where the finished compost was applied as a soil amendment and private drinking water wells in the immediate vicinity of this application, if any. To date, 12 locations where the compost was utilized as a soil amendment have been sampled and five private drinking water wells in the immediate vicinity of this application have been sampled. Dalton Utilities has also submitted to EPA all the final analytical reports received to date for the private drinking water wells and will submit any additional final analytical reports to EPA within five days of receipt. None of the soil sampling results have been received thus far.

As stipulated in the aforementioned Information Request, samples were collected of the three batches of compost aged approximately 6, 12, and 18 months at the time of the August 5, 2009, correspondence to Mr. Hom. Additionally, samples of the locations stipulated in the aforementioned Information Request's Enclosure A, Paragraph 5 were collected before November 1, 2009, and submitted to a contract lab for analysis. Dalton Utilities is awaiting the results of these sampling events and will submit all final analytical reports received from the contract laboratory to EPA which includes the respective chain of custody, analytical results, quality assurance performance results, laboratory detection and reporting limitations, and laboratory methods utilized in analyzing said samples for the compounds listed in Attachment C. At the time of these sampling events, the selected contract laboratory did not have standards and/or validated methods developed for the additional Perfluorinated chemicals (PFCs) noted in the above referenced Information Request. As such, the list of compounds indicated in Attachment C reflects the full current analytical capabilities of the contract laboratory as well as the corresponding detection limits with respect to PFCs.

Further, as noted in our correspondence to Mr. Hom dated October 20, 2009, Dalton Utilities has partnered with the Sustainability Division of the Georgia Department of Natural Resources (DNR) and the University of Georgia (UGA) to conduct a survey to evaluate the current usage and potential levels of perfluorinated chemicals (PFCs) in the industrial discharges into our wastewater collection system. The finalized scope and memorandum of agreement which details the actions to be undertaken as part of this partnership is attached herein as Attachment D. Currently, the sampling as part of this partnership is underway.

Also, as noted in our October 20, 2009, correspondence to Mr. Hom, Dalton Utilities has coordinated with the DNR and the United States Department of Agriculture Wildlife Services (USDA WS) to obtain and analyze blood and tissue samples of the wildlife on Dalton Utilities Land Application System (LAS). The sampling protocol is attached

herein as Attachment E for your review. In accordance with this plan, the deer sampling occurred on October 2 - 3, 2009, and the turkey sampling is tentatively scheduled for the week of November 30, 2009.

Dalton Utilities is in the process of bench scale testing of thermal desorption of PFCs from the 6, 12, and 18 month old compost. In addition, Dalton Utilities has coordinated with the Georgia Environmental Protection Division's (EPD's) air protection branch and has mobilized a full-scale thermal desorption unit to our site for a full-scale field test. This testing is tentatively scheduled to begin next month.

As always, Dalton Utilities will update you as the projects discussed with you proceed. If you have any questions, please contact me at 706-529-1091 or [dcope@dutil.com](mailto:dcope@dutil.com).

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely,



Don Cope  
President & CEO

Attachments (5)

c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)  
Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural  
Resources (cover letter only)  
Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)  
Lee A. DeHihns, Esq.



November 4, 2009

Mr. William Smith  
Georgia Environmental Protection Division  
19 Martin Luther King Jr. Dr., S.W.  
Room 400  
Atlanta, Georgia 30334

Re: Request for Intent to Drill Forms

Dear Mr. Smith:

Pursuant to a recent Section 308 of the Clean Water Act request for information from the United States Environmental Protection Agency (EPA), Dalton Utilities is required to conduct a Drinking Water Well Survey for all wells located within a one mile radius of Dalton Utilities' Land Application System located in Murray and Whitfield Counties. As part of the survey to locate any potentially affected wells, Dalton Utilities is required to review any Intent to Drill Forms or other similar forms that may have been filed with the county health departments in Whitfield and Murray Counties.

Please forward copies or make available original copies for review of any Intent to Drill Forms or other similar forms that are on file for Murray or Whitfield Counties within a 1 mile radius of the Dalton Utilities property as shown on the attached map (see Attachment A).

If you have any questions, please contact me at 706-529-1010 or [dhaverland@dutil.com](mailto:dhaverland@dutil.com).

Sincerely,

---

Dena Haverland  
Regulatory Compliance Manager

Attachment

**Compost Manifest Log - Users Greater than 2,000,000 pounds**

Transporter Name	Transported To	General Uses	Street Address	City	State	Zip Code	Total Weight (lbs)	Date(s) Hauled Off Site
Autry Farms (hauling service)			352 West Watts Rd	Ringgold	GA	30736	14,656,000	9/30/05 - 6/11/09
	Beaty Fertilizer & Chemical Company	Nursery/Landscape supplier - sold as retail - Does not have individual records of who the compost was sold to.	PO Box 2516	Cleveland	TN	37320	5,250,000	
	Hwy 71 Landscaping & Supply Co.	Landscape supplier - sold compost to homeowners and landscape contractors.	3440 Cleveland Hwy	Dalton	GA	30720	1,100,000	
	Pro Lawn	Landscape supplier - sold compost to homeowners and landscape contractors.	1101 Mackey Avenue	Chattanooga	TN	37421	1,550,000	
	Show Place Homes	Used in construction of homes - no known wells	Unknown				900,000	
	Turf Master Supply	Unknown	Unknown				800,000	
	Ooltewah Nursery	Unknown	Unknown				550,000	
	Reed Group	Used in construction of homes - no known wells	Unknown				350,000	
	Redwood Hill	Unknown	Unknown				250,000	
	E H Landscaping	Unknown	Unknown				250,000	
	Circle H Garden Center	Unknown	Unknown				250,000	
	Kreed Construction	Top dressing new lawns	Unknown				200,000	
	Rodney Laurance	Individual used in yard landscaping - no wells	Unknown				150,000	
	Randy Wilhoit	Mixed with chicken litter and used as soil admendment	Unknown				100,000	
	Croxall	Unknown	Unknown				100,000	
	Windwood Bulk Co.	Landscape supplier - sold in bulk as retail	Unknown				100,000	
	W D Scott Co.	Landscape supplier - sold in bulk as retail	Unknown				100,000	
	Chatsworth Farm & Garden Supply	Sold in bulk as retail	824 N 4th Avenue	Chatsworth	GA		50,000	
	David Wright	Unknown	Unknown				50,000	
	Fine View Soils	Mixed with other soil and sold as bulk retail	Unknown				50,000	
	Frاند Reed	Individual used in yard landscaping - no known wells	Unknown				50,000	
	GreenScapes of Chattanooga	Landscape supplier - sold in bulk as retail	Unknown				50,000	
	Harold Parrish	Individual used in yard landscaping - no known wells	Unknown				50,000	
	Hayduk Landscaping	Unknown	Unknown				50,000	
		Individual used in yard landscaping - no known wells	Unknown				50,000	
		Individual used in yard landscaping - no known wells	Unknown				50,000	
	Landscape Supply	Unknown	Unknown				50,000	
	Mountain Crest Landscape	Unknown	Unknown				50,000	
		Individual used in yard landscaping - no known wells	Unknown				50,000	
		Individual used in yard landscaping - no known wells	Unknown				50,000	
	Delivered to individuals.	No records					2,006,000	
Beaty Fertilizer & Chemical Company		Nursery/Landscape supplier - sold as retail - Does not have individual records.	PO Box 2516	Cleveland	TN	37320	3,214,000	11/15/05 - 5/29/09

**Compost Manifest Log - Users Greater than 2,000,000 pounds**

Transporter Name	Transported To	General Uses	Street Address	City	State	Zip Code	Total Weight (lbs)	Date(s) Hauled Off Site
Circle H Trucking		Bagged product shipped to home centers and sold as retail	746 River Street	Ellijay	GA	30540	5,811,000	2/23/05 - 6/3/09
Harvest Farms		Bagged product shipped to home centers and sold as retail	PO Box 40	Harrison	TN	37341	2,152,800	1/7/05 - 10/31/05
		Yard landscape projects	Unknown				2,348,000	4/24/06 - 10/14/08
John Deere Landscaping		Landscape/Nursery supplier - sold to individuals, builders, landscape contractors for use in flower beds, around shrubs and trees. Did not sell for use on lawns. Individual records are business confidential.	650 Stephenson Hwy	Troy	MI	48083	2,450,000	3/31/06 - 10/22/08
Patterson Services		Mixed compost with 80% soil and sold to landscapers and contractors - did not keep individual records on where the compost was used.	5800 Riverview Road	Mableton	GA	30126	8,867,000	12/16/05 - 3/28/08
Shephard Mulch		Landscape supplier - sold as retail to homeowners and landscapers. Has no records of who it was sold to.	117 Roundnob Drive	Rocky Face	GA	30740	2,895,000	12/18/06 - 3/19/09
Lamar Shephard		Landscape supplier - sold as retail to homeowners and landscapers. Sold only for use on lawns and around trees. Does not have any individual records of who the compost was sold to.	695 1/2 N Varnell Rd	Tunnel Hill	GA		8,602,000	2/1/06 - 6/30/09
Weedon Trucking		Lawn landscaping suppliers - sold as retail.	317 Bells Ferry Rd.	Rome	GA		3,330,000	11/2/05 - 5/20/09

EX 6

## List of Perfluoridated Compounds (PFC) for Chemical Analyses

As Revised June 17, 2009, by EPA

Compound	Acronym	Reporting Limit (RL) ug/l	Method Detection Limit (MDL) ug/l
Perfluorobutanoic acid	C4	0.02	0.0062
Perfluoropentanoic acid	C5	0.03	0.0082
Perfluorohexanoic acid	C6	0.02	0.0030
Perfluoroheptanoic acid	C7	0.02	0.0054
Perfluorooctanoic acid	C8 / PFOA	0.02	0.0055
Perfluorononanoic acid	C9	0.02	0.0065
Perfluorodecanoic acid	C10	0.02	0.0026
Perfluoroundecanoic acid	C11	0.02	0.0025
Perfluorododecanoic acid	C12	0.02	0.0040
Perfluorotridecanoic acid	C13	0.02	0.0072
Perfluorotetradecanoic acid	C14	0.02	0.0087
Perfluorobutane sulfonate	PFBS	0.02	0.0045
Perfluorohexane sulfonate	PFHxS	0.03	0.0084
Perfluorooctane sulfonate	PFOS	0.02	0.0068
Perfluorooctane sulfonamide	PFOSA	0.05	0.0057

# Memorandum of Agreement

By and Between

**Pollution Prevention Assistance Division  
Department of Natural Resources  
And  
Dalton Utilities  
For  
PFC Wastewater Sampling Project**

THIS MEMORANDUM OF AGREEMENT, made and entered into as of this 15<sup>th</sup> day of October, 2009 by and between the Pollution Prevention Assistance Division, d/b/a as the Sustainability Division, Department of Natural Resources, State of Georgia (hereinafter, "the DIVISION") and the Dalton Utilities, located at 1200 V.D. Parrott, Jr. Parkway, Dalton, Georgia 30722-0869 (hereinafter, "DU").

WITNESSETH:

WHEREAS, the DIVISION is acting pursuant to the Georgia Waste Management Act, O.C.G.A. 12-8-180, et seq.; and

WHEREAS, perfluorochemicals (hereinafter "PFCs") were used in carpet manufacturing and many carpet manufacturers in the Dalton area discharge wastewater to the DU wastewater collection and treatment system; and

WHEREAS, the U.S. Environmental Protection Agency has identified PFCs as emerging contaminants of concern and has established Provisional Health Advisory levels for two PFCs, perfluorooctanoic acid (PFOA) and perfluorooctyl sulfonate (PFOS); and

WHEREAS, DU wishes to confirm that local carpet manufacturers have ceased using PFOA and PFOS in their manufacturing processes and are no longer discharging these chemicals to the DU wastewater collection and treatment system (hereinafter "the PROJECT"); and

WHEREAS, DU seeks assistance from the Georgia Environmental Partnership, through the DIVISION and the University of Georgia, Faculty of Engineering – Outreach Service (hereinafter "UGA"), in completion of the PROJECT; and

WHEREAS, the DIVISION, upon receipt of \$98,542 in funding from DU, will enter into a contractual agreement (hereinafter "the CONTRACT") with UGA for completion of the PROJECT in accordance with terms of the *Scope of Work* attached hereto as Exhibit A ("Exhibit A") and incorporated herein by reference; and

WHEREAS, the DIVISION and DU have determined that the completion of the PROJECT through the CONTRACT with UGA is a proper and desirable use of DIVISION and DU resources.

NOW, THEREFORE, for and in consideration of the mutual promises and covenants herein contained, the parties do hereby covenant and mutually agree as follows:

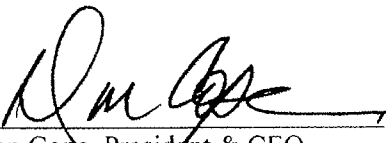
1. Dalton Utilities will pay the DIVISION Ninety-Eight Thousand Five Hundred Forty-Two and No/Hundreds dollars (\$98,542.00) needed for execution and administration of the CONTRACT; and
2. The DIVISION will utilize this Ninety-Eight Thousand Five Hundred Forty-Two and No/Hundreds dollars (\$98,542.00) in execution and administration of the CONTRACT.
3. Each party hereby certifies that it has complied with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act, O.C.G.A. § 13-10-90 et seq., by registering at <https://www.vis-dhs.com/EmployerRegistration> and verifying information for all new employees and executing any affidavits required by Ga. Comp. R & Regs. r. 300-10-1-.01 et seq.

IN WITNESS WHEREOF, the DIVISION and DU have executed this Memorandum of Agreement for the aforementioned PFC wastewater sampling project to be given effect as of the date first above written.

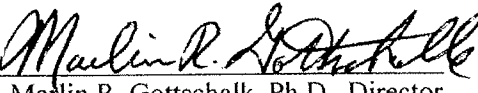
Dalton Utilities

Department of Natural Resources  
Pollution Prevention Assistance Division

BY:

  
Don Cope, President & CEO


BY:

  
Marlin R. Gottschalk, Ph.D., Director

Attest:

Attest:

  
Witness

  
Witness

## PROPOSAL COVER PAGE

Dalton Utilities' Industrial Users  
PFC Wastewater Sampling Project

**Team Leaders:** Ryan B. Adolphson  
Dr. Brian Kiepper

**Institution:** The University of Georgia  
**Address:** Faculty of Engineering – Outreach Service  
Driftmier Engineering Center, Athens, GA 30602  
**Phone:** 706-583-0611  
**E-mail:** rba@uga.edu  
bkiepper@engr.uga.edu

**Primary Industry Partner Contact:** Don Cope, President

**Institution:** Dalton Utilities  
**Address:** 1200 V.D. Parrott Jr. Parkway  
Dalton, GA 30721  
**Phone:** 706-278-1313  
**E-mail:** dcope@dutil.com

## **Scope of Work**

Dalton Utilities (DU) requested the Sustainability Division of the Department of Natural Resources (DNR) to assist in the current extensive wastewater sampling survey of DU industrial users to determine any potential sources of Perflourooctanoic acid (PFOA) and Perflourooctane sulfonate (PFOS) and various forms thereof within the DU wastewater service area. In an effort to ensure an unbiased survey, Dalton Utilities has requested the assistance of the Sustainability Division of the Department of Natural Resources (DNR) and the Faculty of Engineering Outreach Service at The University of Georgia (UGA) to conduct an impartial third party sampling of all Industrial Users (IU). All sampling activities and associated activities will be conducted by UGA Personnel. It is expected that all sampling of IU will be concluded before the end of 2009.

### **Assumptions:**

1. Plant locations will be readily accessible during regular business hours.
2. UGA will use the existing pre-treatment sampling locations currently used by Dalton Utilities
3. UGA will have presumptive authority to sample at said locations at each IU location
4. The "long list" of associated PFOA/PFOS compounds will be able to be analyzed by one laboratory (see attached list below) except for
  - a. 6:2 Fluorotelomer carboxylic acid (6:2 FTUCA)
  - b. 8:2 Fluorotelomer carboxylic acid (8:2 FTUCA)
  - c. 10:2 Fluorotelomer carboxylic acid (10:2 FTUCA)
  - d. Polyfluoroalkyl phosphate surfactants

### **Major Equipment and Facilities Required:**

All transportation vehicles, the UGA Engineering Outreach Service Mobile Laboratory trailer, wastewater and biomass sampling equipment, computers, office and laboratory space required will be provided by UGA. All consumables, shipping and supplies required for water sampling will be provided by the MPI Research Laboratory.

### **Sampling Process:**

All sampling will be done as composite samples meaning that a series of aliquots will be taken on a time basis using automatic sampling devices. These devices will take a 50ml sample every 15 minutes for a 24 hour composite. The 24 hour composite sampling will be repeated for 5 consecutive days. Upon conclusion of the 5 day sampling regime, the daily composite samples will be combined to make a single sample which will be analyzed. The 5 day composite will be a combination of 1000ml of each 24 hour composite sample. Each day composite sample for each IU will be saved until the results come back on the 5 day composite sample so if there is cause, further investigation can be accomplished without having to resample the IU.

All sampling equipment will not use Teflon or be Teflon based products. All sampling equipment will be constructed of stainless steel, glass or high density polyethylene

## Exhibit A

(HDPE) and be decontaminated between each sample location. A minimum number of equipment blanks will be taken at the beginning of each sampling regiment and will be analyzed to determine if there is any background PFCs in the sampling equipment.

Phase 1: To sample 6 strategically located junctions within the wastewater collection system. The selection of these locations will be determined by DU and are based on previous experience with collection system investigations. Each sample will be analyzed for the full list of PFCs (see attached for complete list). Sampling is expected to take 1 week. Total number of samples to be analyzed: 6.

Phase 2: Upon the completion of Phase 1, the 45 IU outfalls will be sampled in order of priority either derived from the data received from the original 6 sampling locations or based on expected known potential users of products expected to contain PFOA or PFOS compounds within the manufacturing process. Each sample will be analyzed for the full list of PFCs. Total number of samples to be analyzed: 45.

The IU will be sampled in lots of 9 IU per week. Sampling is expected to take 5 weeks. These 5 weeks will not be concurrent but will be accomplished within a reasonable time frame.

Phase 3: Samples will be collected simultaneously for influent and effluent at each wastewater treatment facility. A dewatered sludge sample from the composting operation will also be taken simultaneously with the influent and effluent samples of the wastewater plants. Each sample will be analyzed for the full list of PFCs. Total number of samples to be analyzed: 7.

### **Reporting:**

Reporting of results will be presented as a final report to DU upon conclusion of the project which is expected to be in the first quarter of 2010. This extended time frame is due to the time required by the laboratory. The laboratory has a 6 week turnaround on sample results.

The final report will include but not be limited to the following information

1. Sampling methods and collection activities
2. Sampling locations (GPS coordinates)
3. Site and weather conditions
4. Photos of all sampling locations
5. Industrial user information
6. Analytical method and detection limits
7. Data presented by IU and sector

## Exhibit A

### **Project Team:**

**Team Leader:** Dr. Brian Kiepper is an Associate Professor with dual appointments with Bio & Ag Engineering and Poultry Science at the University of Georgia. Dr. Kiepper has a B.S. degree from Tenn. Tech Univ. in Agriculture, a M.S. degree from UGA in Food Science and a PhD in Poultry Science from UGA. Dr. Kiepper has 12 years of experience with the Engineering Outreach Service at UGA where he has completed numerous projects in waste water industrial processing plants, additionally Dr. Kiepper has five years experience as director of a municipal wastewater treatment facility.

**Project Manager:** Mr. Jason Governo is a Research Engineer with the UGA Engineering Outreach Service. Mr. Governo has a B.S. and M.S. degree from the University of Georgia in Engineering. Mr. Governo brings over 10 years of experience in project management as well as bioconversion research to the research team.

### **Schedule:**

Key Project Activities:	Months >	1	2-3	3-5
Phase 1: Sample Collection & Testing: <ul style="list-style-type: none"><li>- Identify 6 locations in collection system</li><li>- Collect and analyze samples</li></ul>	X X		X	
Phase 2: Sample Collection & Testing: <ul style="list-style-type: none"><li>- Identify 45 IU locations</li><li>- Collect and analyze samples</li></ul>	X		X	X
Phase 3: Sample Collection & Testing: <ul style="list-style-type: none"><li>- Identify POTW influent and effluent locations</li><li>- Identify sampling locations for sludge</li><li>- Collect and analyze samples</li></ul>			X X X	X
Phase 4: Project Publication: <ul style="list-style-type: none"><li>- Write, print and distribute final reports</li></ul>				X

Note: Months 1-5 are October 2009 through February 2010

Exhibit A

**Budget:**

<b>Personnel Costs</b>		
Principal (PI): Dr. Brian Kiepper		5,240
Project Manager: Jason Governo		17,120
<b>Total Personnel Costs</b>		<b>22,360</b>
<b>Travel</b>		
		7,100
<b>Total Travel Costs</b>		<b>7,100</b>
<b>Materials and Supplies</b>		
	Laboratory Analytics (65*)	39,000**
	Laboratory QA/QC (6*)	2,700
	Sampling Supplies	2,800
	Publication Development & Printing	1,500
<b>Total M&amp;S Costs</b>		<b>46,000</b>
<b>Total Equipment Costs</b>		<b>9,490</b>
<b>Total Direct Costs</b>		<b>84,950</b>
<b>Total Indirect Costs</b>	16% of Direct Costs	<b>13,592</b>
<b>Total Budget</b>		<b>98,542</b>

\*58 field samples and 7 trip samples, QA/QC based on 10% of field samples

\*\*Based on \$600/sample (QA/QC @ 75% of sample cost)

# Exhibit A

Compound	Acronym
Perfluorobutanoic acid	C4
Perfluoropentanoic acid	C5
Perfluorohexanoic acid	C6
Perfluoroheptanoic acid	C7
Perfluorooctanoic acid	C8
Perfluorononanoic acid	C9
Perfluorodecanoic acid	C10
Perfluoroundecanoic acid	C11
Perfluorododecanoic acid	C12
Perfluorotridecanoic acid	C13
Perfluorotetradecanoic acid	C14
Perfluorobutane sulfonate	PFBS
Perfluorohexane sulfonate	PFHxS
Perfluoroheptane sulfonate	PFHpS
Perfluorooctane sulfonate	PFOS
Perfluorodecane sulfonate	PFDS
6:2 Fluorotelomer carboxylic acid	6-2FTUCA***
8:2 Fluorotelomer carboxylic acid	8-2FTUCA***
10:2 Fluorotelomer carboxylic acid	10-2FTUCA***
6:2 Fluorotelomer alcohol	6:2 FTOH
7:2 sFluorotelomer alcohol	7:2 sFTOH
8:2 Fluorotelomer alcohol	8:2 FTOH
10:2 Fluorotelomer alcohol	10:2 FTOH
Perfluorooctane sulfonamide	PFOSA
2(N-ethylperfluorooctanesulfonamido) acetic acid	EtFOSAA
2(N-methylperfluorooctanesulfonamido) acetic acid	MeFOSAA
N-methylperfluorooctanesulfonamidoethanol	N-MeFOSE
N-ethylperfluorooctanesulfonamidoethanol	N-EtFOSE
<b>Polyfluoroalkyl phosphate surfactants</b>	<b>PAPS***</b>

\*\*\* NOT INCLUDED IN THE COST FOR SAMPLING A separate price will need to be determined as the laboratory is not set up for testing these compounds.

# Dalton Utilities

## Wildlife Sampling Protocol

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November 2009

# Dalton Utilities Wildlife Sampling Protocol

## Table of Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>Dalton Utilities Wildlife Sampling Protocol .....</b>	<b>4</b>
1. Identification of Wildlife and Methodologies.....	4
2. Identification of Sample Matrices.....	4
3. Permitting.....	4
4. Sample Collection.....	4
5. Sample Identification, Labeling, Chain of Custody, and Recordkeeping.....	5
6. Quality Control .....	6
7. Shipment of Samples .....	6
8. Sample Analyses .....	6
9. Reporting.....	6
<b>Attachment A.....</b>	<b>8</b>
<b>Attachment B.....</b>	<b>10</b>
<b>Attachment C.....</b>	<b>12</b>

# Dalton Utilities Wildlife Sampling Protocol

## **Executive Summary**

Dalton Utilities, located in Dalton, Georgia, operates water treatment, wastewater treatment, natural gas, electric, and telecommunication systems that serve residents in the City of Dalton in addition to residents in Whitfield, Murray, Gordon, and Catoosa Counties.

Dalton Utilities wastewater operations is comprised of approximately 295 miles of pipe, 5,544 manholes, and 35 lift stations in the wastewater collection system, five wastewater treatment facilities, and 9,800 Land Application System (LAS). The largest three wastewater treatment plants (WWTP), Abutment WWTP, Riverbend WWTP, and Loopers WWTP are part of Dalton Utilities Land Application System (LAS) which is a non-discharging system.

These three WWTPs take wastewater from local industries and the residents of the City of Dalton and parts of Whitfield County and process the wastewater utilizing biological treatment. The treated wastewater or effluent is then transported to the canal or reservoir located at the LAS. The effluent flows through the canal system to the pump stations where the effluent is chlorinated and then pumped to various sprayfields. The effluent is distributed via underground piping and sprayed using impact sprinklers onto the land where the effluent infiltrates the soil surface and subsurface providing additional treatment.

In May 2009, Dalton Utilities collected samples at various locations on the LAS. In response to these sample results, Dalton Utilities decided to sample the wildlife on the LAS to identify the levels of Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) present in the wildlife population.

## Dalton Utilities Wildlife Sampling Protocol

### **Dalton Utilities Wildlife Sampling Protocol**

#### 1. Identification of Wildlife and Methodologies

Dalton Utilities routinely conducts controlled quota hunts as part of the on-going management of the Land Application System. These hunts are conducted in partnership with the Georgia Department of Natural Resources (DNR) and are intended to manage the population of deer and turkey on the property.

To select the animals for sampling, Dalton Utilities enlisted the assistance of the United States Department of Agriculture, Animal and Plant Health Inspection Services, Wildlife Services (USDA/APHIS WS) and Georgia Department of Natural Resources (DNR). Also, Dalton Utilities contacted the State of Alabama's Veterinarian as it was known that similar sampling and analyses were conducted in Decatur, Alabama.

#### 2. Identification of Sample Matrices

Similar to the sampling conducted in Decatur, Alabama, Dalton Utilities, through consultation with USDA/APHIS WS, DNR, and University of Georgia Warnell School of Forestry & Natural Resources, identified the blood (serum), liver, and skeletal muscle to be the most appropriate samples to be analyzed.

As PFOA and PFOS have established public health advisories for drinking water, only these two chemicals were chosen for analyses as part of this study.

#### 3. Permitting

In accordance with the Official Code of Georgia Annotated (OCGA) Section 27-2-12, a Scientific Collecting Permit was obtained by Dalton Utilities for the duration of this project. The Scientific Collecting Permit is attached herein as Attachment A.

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#### 4. Sample Collection

Dalton Utilities requested USDA/APHIS WS to harvest approximately 10 deer and 10 turkeys to ensure a selection of different aged animals. From these 10 specimens, two deer and two turkeys will be selected for sampling based on the approximate ages of the animals. The oldest and youngest of the harvested animals will be selected for sampling as part of this project. No additional consideration will be given to the sex of the animals.

## Dalton Utilities Wildlife Sampling Protocol

One to eight of the remaining animals may be sampled as time and resources permit. Samples from these additional animals will remain in storage for up to six months or until it is determined if further testing is necessary.

Blood from the deer will be drawn via heart puncture immediately after death. Approximately 50 milliliters (ml) of blood will be collected utilizing a Monoject® 60 ml syringe, Ait-Tite® 3 inch, 16 gauge needle, and BD plain red-top serum vacutainer®. Blood tubes will be held in refrigeration and centrifuged 12 – 18 hours after collection. Approximately 5-10 ml of serum will be collected via Fisherbrand® borosilicate glass pipets and 1 ml aliquots will be placed in Corning® 2.0 ml cryo vials.

Blood from the turkeys will be drawn via venipuncture. Approximately 10 milliliters (ml) of blood will be collected utilizing a Monoject® needle and BD plain red-top serum vacutainer®. Blood tubes will be held in refrigeration and centrifuged 12 – 18 hours after collection. Approximately 2-5 ml of serum will be collected via Fisherbrand® borosilicate glass pipets and 1 ml aliquots will be placed in Corning® 2.0 ml cryo vials.

USDA/APHIS WS will collect skeletal muscle samples and entire liver samples for each deer or turkey selected for testing. The body cavities of each animal will be opened utilizing stainless steel and plain steel instruments. A separate set of stainless steel instruments will be used to collect both the muscle tissue and liver samples. All instruments will be cleaned with soap and water followed by a 95% ethanol rinse between each animal to prevent cross-contamination.

After collection, all samples will be placed into the appropriately labeled Teflon free containers, vials for serum and Ziploc bags for the liver and tissues. These will then be placed in a cooler containing wet ice for transport back to the USDA/APHIS WS office. Immediately upon arrival, the samples will be placed in a -20°C freezer until solid. Samples will then be shipped in an insulated container with dry ice via overnight courier to the contract laboratory.

Upon the harvesting of each animal, an individual number indicating the order of the animals harvested will be assigned to the animal and general information such as sex, weight, approximate age, and general location where animal was obtained recorded on a specified form. Examples of these forms are attached herein as Attachment B.

### 5. Sample Identification, Labeling, Chain of Custody, and Recordkeeping

For simplicity, the sample containers will be labeled appropriately as to the numeric identifier, sex, and approximate age of the specific animal and the type of sample (i.e. serum, liver, tissue).

## Dalton Utilities Wildlife Sampling Protocol

The sample container labels will correspond directly with the Chain of Custody. The individual collecting the sample will fill out the Chain of Custody appropriately and relinquish the samples to the contract laboratory via the signature on the Chain of Custody. An example Chain of Custody is attached herein as Attachment C.

All records pertaining to this project will be collected and maintained by Dalton Utilities.

### 6. Quality Control

With the limited scope of this project, no field duplicates will be collected and analyzed. Quality control of the laboratory analyses will be conducted in accordance with the contract laboratory's QC program and procedures and will include laboratory duplicates and matrix spikes.

### 7. Shipment of Samples

The samples will be placed in the appropriately labeled containers with the completed Chain of Custody and shipped in an insulated container with dry ice via an overnight courier to the contact laboratory for analyses.

### 8. Sample Analyses

As PFOA and PFOS have established public health advisories for drinking water, only these two chemicals were chosen for analyses as part of this study. The concentrations of these two chemical will be determined utilizing the contract laboratory's method for analyses. The method will be provided to Dalton Utilities by the contract laboratory in the subsequent analytical report.

### 9. Reporting

The analytical report for this project will be provided to Dalton Utilities upon completion and verification of the analyses by the contract laboratory. A full report including all analytical results will be provided to EPA once the final analytical results are received.

### 10. References

Dobson, K, 2009. U.S.D.A. F.S.I.S. Sample Collection Protocol Decatur Biosludge Investigation. Unpublished.

Giesy, JP and Kannan, K. 2001. Global distribution of perfluorooctane sulfonate in wildlife. Environ Sci Technol 35(7): 1339-42.

## Dalton Utilities Wildlife Sampling Protocol

Giesy JP, KK. 2001. Accumulation of Perfluorooctanesulfonate and related Fluorochemicals in Mink and River Otters. U.S. EPA Administrative Record AR226-1030a157.

Kannan, K., Newsted, J., Halbrook, RS and Giesy, JP. 2002. Perfluorooctanesulfonate and related fluorinated hydrocarbons in mink and river otters from the United States. Environ Sci Technol 36(12): 2566-71.

Dalton Utilities Wildlife Sampling Protocol

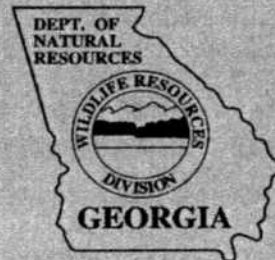
Attachment A

**SCIENTIFIC COLLECTING PERMIT**

**(29-WTN-09-220)**

**FEE: \$50**

STATE OF GEORGIA  
DEPARTMENT OF NATURAL RESOURCES  
CHRIS CLARK, Commissioner



Permittee: DALTON UTILITIES, DENA HAVERLAND  
1200 V.D. PARROTT JR. PARKWAY  
DALTON, GA 30722  
CN: 23178

Species: WHITETAILED DEER; EASTERN WILD TURKEY

Numbers(if applicable):

Expiration date: March 31, 2010

Above named is hereby permitted, in accordance with O.C.G.A. 27-2-12 and the regulations of the Georgia Department of Natural Resources subject to the terms, exceptions, and restrictions expressed on the attached "General Conditions" and subject to any other applicable State or federal regulations, to take for scientific and educational purposes only the State of Georgia, wildlife which is listed above.

This permit is conditional and confer NO pri  
ans migratory their par n  
le rcising he grante her  
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whatsoever to take, possess, exchange, or  
unless the permittee has in his possession,  
ubstisting permit to take Migratory Birds and  
S ate ed him by the U.S.  
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Dalton Utilities Wildlife Sampling Protocol  
**SCIENTIFIC COLLECTING PERMIT GENERAL PROVISIONS**

Attachment A

1. A Federal Permit is also required for collection of migratory birds or their parts, nests, or eggs.
2. Region or District Law Enforcement office, along with Game Management, Fisheries Management, or the U.S. Forest Service, if applicable, in each area of collection must be notified at least three (3) days in advance of the date and place of specimens are to be collected, the species to be collected, methods of collection, and permit number.
3. Collectors should be as judicious and humane as possible in collecting and capture.
4. The Department of Natural Resources reserves the right to limit the kind and numbers of specimens collected in order to ensure the conservation of the natural resources of this State. The taking of wildlife at anytime by means other than those conditions set forth in this permit is prohibited.
5. This permit does not authorize the taking of any listed (endangered, threatened, rare, or unusual) species unless specifically provided.
6. This permit does not authorize collections on State or Federal Wildlife Refuges, management areas, other sanctuaries, or parks unless specifically provided. If authorized, specific written permission must be obtained from the park manager, area manager, or supervisor prior to any collection activities.
7. Permits are not transferable. However, assistants, employees, or field workers may assist with collections. Designated representatives of the master permittee must possess a copy of the permit and a letter of authorization from the master permittee.
8. Permittees must submit an annual report of specimens collected upon expiration date of said permit. Forms for this reporting are available from the Department of Natural Resources Special Permit Unit. **NO PERMITS SHALL BE RENEWED UNTIL SUCH REPORT IS RECEIVED.**
9. Collections shall be available for inspection at any and all times to duly authorized inspectors or agents of the Department of Natural Resources.
10. Any permit may be revoked at any time for violation of the terms, exceptions, restrictions, or conditions of said permit.
11. The Department may request, when practical, duplicates of any collections taken under authority of this permit for future educational purposes.
12. All permits expire March 31.
13. This permit does not authorize the exchange of fish and wildlife, their parts, nests, or eggs, with persons who do not hold an appropriate permit.
14. Permit (copy and letter of authorization for subpermittees) must be in possession while collecting.
15. Encounters with animals listed on the Georgia DNR Nongame Conservation Section's Tracking List of Special Concern Animals must be reported within one (1) year to: GA DNR Nongame Conservation Section, (770) 918-6411 or (706) 557-3032. Electronic submission forms may be found at <http://www.georgiawildlife.com/> > Nongame Animals & Plants > Georgia Rare Species Information.

Georgia Department of Natural Resources  
Wildlife Resources Division  
Special Permit Unit  
2065 U.S. Highway 278, S.E.  
Social Circle, GA 30025-4743  
770-761-3044

## Attachment B

Page 10 of 12

**Attachment B**

**DALTON UTILITIES**

HUNT TYPE \_\_\_\_\_ HUNT DATES \_\_\_\_\_

**TURKEY HARVEST RECORD**

	DATE	NAME OF HUNTER	SCORE OF TURKEY	AGE	WEIGHT		BEARD LENGTH	SPUR LENGTH	
					lbs.	oz.		LEFT	RIGHT
1									
2									
3									
4									
5									
6									
7									
8									
9									
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11									
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18									
19									
20									



Sampling Protocol

## Sample Submittal

Client ID# Description	Lot/ Control #	Amt. Sent/ Weight	# of Bottles	Matrix	Date & Time	Tests Requested
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